

Complementary and Alternative Medicine

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Complementary and Alternative Medicine (CAM)

- ★ Definitions
- ★ Importance
- ★ 5 Broad Categories
- ★ Practical Application
- ★ Resources



Definitions

CAM

- ★ As defined by *National Center for Complementary and Alternative Medicine (NCCAM)*:
 - A group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine



Definitions

CAM

- ★ As defined by *The Panel on Definition and Description, CAM Research Methodology Conference, Office of Alternative Medicine, NIH*:
 - A broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period



Definitions

Traditional Medicine (WHO)

- ★ Health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being



Definitions

Integrative Medicine

- ★ As defined by NCCAM:
 - Combines mainstream medical therapies and CAM therapies for which there is some high-quality scientific evidence of safety and effectiveness.



Definitions

Holistic Medicine

- ★ Merriam-Webster:
 - ★ Relating to or concerned with wholes or with complete systems rather than with the analysis of, treatment of, or dissection into parts <*holistic* medicine attempts to treat both the mind and the body> .



Definitions

Holistic Medicine

- American Holistic Medical Association
 - * Holistic medicine is the art and science of healing that addresses the whole person - *body, mind, and spirit*.
 - * The practice of holistic medicine integrates conventional and complementary therapies to promote OPTIMAL HEALTH and to prevent and treat disease.
 - * Holistic is ALWAYS integrative or CAM; but Integrative and CAM are often—but NOT always Holistic



CAM vs. Integrative

- ★ **Alternative**

- *In place of* conventional treatment

- ★ **Complementary:**

- *Together with* conventional treatment

- ★ **CAM:**

- Alternative therapies, *perhaps lacking accepted evidence*, to *complement* conventional therapies

- ★ **Integrative:**

- CAM therapies *backed by evidence combined* with conventional therapies



Importance

- ★ At least 42% (1997) of our patients use some form of alternative therapy
 - Most (66%) are hesitant to share this information with their physician
 - 1990: 425M visits for CAM vs. 388M to conventional primary care – 1997: 629M vs 386M
- ★ You are responsible for:
 - CAM therapy – conventional therapy interactions
 - Patient education
 - Therapeutic indications
 - Current evidence



Importance

- ★ China: traditional herbal preparations account for 30%-50% of the total medicinal consumption.
- ★ Ghana, Mali, Nigeria and Zambia: herbal medicines at home are first line treatment for 60% of children with high fever resulting from malaria
- ★ Europe, North America, other industrialized regions, over 50% of the population have used complementary or alternative medicine at least once



Importance

- ★ San Francisco, London and South Africa: 75% of people living with HIV/AIDS use TM/CAM.
- ★ Canada: 70% of the population in have used complementary medicine at least once.
- ★ Germany: 90% of the population have used a natural remedy at some point in their life



Importance

- ★ US: 158 million of the adult population use complementary medicines and according to the USA Commission for Alternative and Complementary medicines
 - \$**17 billion** was spent on traditional remedies in 2000
- ★ UK: annual expenditure on alternative medicine is **\$230 million**.
- ★ Global market for herbal medicines currently over **\$60 billion** annually and growing



Why Patients Use Complementary Medicine

- ★ Value whole person emphasis
- ★ Conventional treatment didn't work
- ★ Adverse effects of conventional medicine
- ★ Active participation in treatment
- ★ Poor doctor communication previously

Vincent, C. 1996 "Why do patients turn to complementary medicine? An empirical study. *British Journal of Clinical Psychology* 35:37-4



Concepts of Conventional Medicine

- ★ Health is the absence of disease
- ★ Disease is a specific disorder of anatomy or physiology
- ★ Diagnosis of disease is based on morphological, biochemical, or molecular abnormalities
- ★ Pathophysiologic processes are similar in different patients
- ★ Therapies are external to the patient and responses are similar in different patients



Concepts of Alternative Therapies

- ★ Health is balance of internal and external forces – this is the normal state
- ★ Disease is a symptom of disruption of a balanced life force
- ★ Disease diagnosis is not important, rather that the imbalance is detected
- ★ Therapy is individualized
- ★ The patient is empowered allowing the body to heal



Similarities in Alternative Therapies

- ★ Based on metaphysical concepts
- ★ Focus is to restore vital life forces
- ★ Goal is renewed *balance* of Internal/External forces
- ★ Individualized therapy
- ★ Multiple modalities
- ★ Response determined by patient
- ★ Repeated visits
- ★ Face-to-face time (more)



ABHM 6 + 6

★ **Core**

- Body
 - ★ Nutritional Medicine
 - ★ Exercise Medicine
 - ★ Environmental Medicine
- Mind
 - ★ Behavioral Medicine
- Spirit
 - ★ Spiritual Medicine
 - ★ Social Medicine



ABHM 6 + 6

★ **Specialized**

- Biomolecular Medicine
- Botanical Medicine
- Energy Medicine
- Ethnomedicine (TCM, Ayurveda, Native American Medicine)
- Homeopathic Medicine
- Manual Medicine



5 Categories (NCCAM)

- ★ Alternative Medical Systems
- ★ Mind-Body Interventions
- ★ Biologically Based Therapies
- ★ Manipulative and Body-Based Methods
- ★ Energy Therapies



Alternative Medical Systems

- ★ Built upon complete systems of theory and practice – often evolved apart from and earlier than conventional medicine
 - Homeopathic medicine
 - Naturopathic medicine
 - Ayurveda
 - Traditional Chinese Medicine (TCM)



Alternative Medical Systems

Homeopathic Medicine

- ★ *Multiple* schools in US
- ★ No federal accreditation program for schools of homeopathy
- ★ No national licensure examination for homeopathic providers
- ★ 3 states (AZ, CT and NV) license MDs
- ★ In scope of practice for states that license naturopathic physicians
- ★ Rules vary by state regarding practice of homeopathy by licensed practitioners



Alternative Medical Systems

Homeopathic Medicine

- ★ Samuel Hahnemann – 3 main principles
 - “*Law of similars*”: a substance that can cause disease in a well person can cure similar symptoms in the diseased
 - “*Principle of the minimum dose*”: by diluting a substance, its curative properties are enhanced and its side effects minimized
 - *Prescribing for the individual*: advocates basing treatment not only on the medical diagnosis but also the patient's temperament, personality and emotional and physical responses



Alternative Medical Systems

Naturopathic Medicine

- ★ 4 schools in US
- ★ Naturopaths are licensed or regulated in 12 states and 4 providences
- ★ Trained to use a wide variety of therapies, including nutrition, homeopathy, herbal remedies, hydrotherapy, massage, acupuncture, fasting and breathing



Alternative Medical Systems

Naturopathy - philosophy

- * *The healing power of nature:* The belief that the body has the inherent nature to heal itself
- * *Treat the whole person:* The belief that health and disease result from the interaction of a person's physical, mental, emotional, genetic, environmental and social components
- * *First, do no harm*



Alternative Medical Systems

Naturopathy - philosophy

- * *Identify and treat the cause:* The belief that one should treat the cause of disease, not merely the symptoms
- * *Prevention is the best cure*
- * *The physician is a teacher:* The belief that a physician's major role is to educate, empower and motivate patients to take responsibility for their own health



Alternative Medical Systems Ayurveda

- * 10 Ayurveda clinics in North America
 - No accreditation or certifying body at this time
- * Traditional holistic medical system of India
 - Has been practiced for more than 5000 years
 - Comprehensive health care system with eight branches
- * Views symptoms of disease as the body's normal way of communicating disharmony
 - Goal is to reestablish harmony between self and environment and create an optimal environment for health



Alternative Medical Systems Ayurveda

- * Constitution created at conception that determines basic physiology and personality
 - Inherent balance of three subtle biological forces (doshas) which govern the functions of the body:
 - * Vata (motion), Pitta (metabolism), and Kapha (cohesiveness)
- * Approaches the cure of the person who has the disease, not the cure of the disease



Alternative Medical Systems Ayurveda

- * Group of treatments: "five sense therapies."
 - Diet and herbalism, aroma therapy, color therapy, sound therapy, and touch therapy (massage and marma therapy)
 - Recommends how to use the senses to interact with the environment to create balance
 - * Based on a person's constitution, current health imbalances, and the time of the year
- * Ayurveda is the healing side of yoga - yoga is the spiritual tradition from which Ayurveda emerged



Alternative Medical Systems TCM

- * Comprehensive system of health care
 - Includes acupuncture, Chinese herbology and bodywork, dietary therapy and exercise based on traditional Oriental medicine principles
- * Based on an *energetic* model rather than the *biochemical* model of Western medicine
 - Qi (chi) – energy, Yin / Yang, 14 *main* meridians
 - If the flow of Qi is insufficient, unbalanced or interrupted, Yin and Yang become unbalanced, and illness / symptoms may occur



Alternative Medical Systems

TCM - Therapies

★ Acupuncture

- Based on the flow of Qi through meridians
- Needles inserted into well described, often palpable points direct the flow

★ Moxibustion

- Applying heat (burning mugwort usually) to acupoints



Alternative Medical Systems

TCM - Therapies

- ★ Cupping

- Applying suction through a metal, wood or glass jar – pneumatic or by using a flame (vacuum)

- ★ Gua Sha (scraping)

- With a smooth edged instrument (spoon)

- ★ Both for stubborn myofascial pain – increases blood flow to area



Alternative Medical Systems

TCM - Therapies

- ★ Chinese herbs
 - Used as stand-alone treatment, or to augment acupuncture
 - ★ Reinforce and prolong effect of acupuncture
 - Tablets, tinctures, powders, bulk
 - For conditions other than pain (internal medicine)
 - Be aware that many preparations comprised of *multiple* herbs



Acupuncture:

NIH Consensus - 1997

- ★ Efficacious for:
 - Adult post-operative pain and chemotherapy nausea and vomiting, nausea of pregnancy, post-operative dental pain
- ★ Adjunctive in:
 - Addiction, stroke rehabilitation, headache, menstrual cramps, tennis elbow, fibromyalgia, myofascial pain, osteoarthritis, low back pain, carpal tunnel syndrome, and asthma



Alternative Medical Systems

Acupuncture - Practitioners

- * Licensed Physicians (MD/ DO)
 - Need at least 200 CME hours to practice in most states
- * Non-physician
 - Licensed medical profession in over 40 states plus the District of Columbia
 - The *Accreditation* Commission for Acupuncture and Oriental Medicine (ACAOM) – 53 school/colleges
 - National *Certification* Commission for Acupuncture and Oriental Medicine (NCCAOM) accredited school
 - Usually 3 years master's level training (or greater)
 - Board certification (NCCAOM) to practice



Alternative Medical Systems

Acupuncture - Theories

- ★ "Augmentation of Immunity"
 - Raises levels of specific hormones, prostaglandins, white blood counts, gamma globulins, opsonins, and overall antibody levels
- ★ "Endorphin"
 - Stimulates the secretions of endorphins
- ★ "Neurotransmitter"
 - Certain neurotransmitter levels affected by acupuncture



Alternative Medical Systems

Acupuncture - Theories

- ★ "Circulatory"
 - Has the effect of constricting or dilating blood vessels (histamine)
- ★ "Gate Control"
 - Small c-fiber gates
 - Frequency of stimulation (Hz) and depth of insertion determines mechanism
 - TCM vs neuroanatomic acupuncture



Acupuncture treatments recognized by WHO

- * *Gastrointestinal disorders*
- * *Urogenital disorders*
- * *Gynecological disorders*
- * *Respiratory disorders*
- * *Eye, ear, nose and throat disorders*
- * *Musculoskeletal / nervous system*
- * *Circulatory disorders*
- * *Emotional and psychological disorders*
- * *Addictions:*
- * Supportive therapy for other chronic and painful debilitating disorders.



Mind-Body (-Spirit) Interventions

- ★ Uses a variety of techniques designed to enhance the mind's capacity to affect bodily function and symptoms
 - Hypnosis, meditation, prayer, mental healing, guided imagery, biofeedback, and therapies that use creative outlets such as art, music, or dance



Biologically Based Therapies

- ★ Use substances found in nature, such as herbs, foods, and vitamins
 - Dietary Supplements
 - Botanicals
 - Specialized diets / nutrition
 - Aromatherapy
 - Chelation



Manipulative and Body-Based Methods

- ★ Based on manipulation and/or movement of one or more parts of the body
 - Chiropractic
 - Osteopathic
 - Deep Tissue Massage



Energy Therapies

- ★ Involve the use of energy fields
- ★ Biofield therapies
 - Qigong, Reiki, Therapeutic Touch
 - ★ Intended to affect energy fields that “purportedly” surround and penetrate the human body
 - ★ Manipulate biofields by applying pressure and/or manipulating the body by placing the hands in, or through, these fields



Energy Therapies

Qi (energy) **Gong** (skill or practice)

- ★ Promotes health and healing by physical and mental exercises that promote the balancing of Qi
- ★ Consists primarily of meditation, relaxation, physical movement, mind-body integration, and breathing exercises
- ★ External (medical) Qigong
 - Emission of Qi by a Master with the objective of affecting someone other than himself



Energy Therapies

Reiki

- ★ Not taught in the usual sense, rather is transferred to a student by a Reiki Master
- ★ Seeks to restore order to the body whose vital energy has become unbalanced



Energy Therapies

Therapeutic Touch

- ★ Developed by Dolores Krieger, PhD, RN
 - Primarily practiced within nursing profession
- ★ “An intentionally directed process of energy exchange during which the practitioner uses the hands as a focus to facilitate the healing process.”



Energy Therapies

- ★ Bioelectromagnetic-based therapies
 - Involve the “unconventional” use of electromagnetic fields such as pulsed fields, magnetic fields, or alternating current or direct current fields



Practical Application

- ★ Nutritional - diets, supplements
- ★ Naturopathy
- ★ Manual therapies
- ★ Acupuncture
- ★ Botanicals
- ★ Homeopathy



Practical Application

Nutritional - Diets

- ★ Be able to give advice beyond that of (inadequate) medical school / residency training
 - Specialized according to dysfunction / disease / individual
- ★ Focus on achieving and maintaining *wellness* and the *prevention* of disease
- ★ Nutrition is the *foundation* of health
- ★ Good educational sources: naturopathic, nutritionist



Practical Application

Nutritional - Supplements

- * Vitamins: antioxidants, B vitamins, trace
 - Try to be able to account for each vitamin ingested
 - Be able to advise a dose –usually NOT the RDA
 - Consider against a MVI (mixed may not be therapeutic)
- * Minerals: Calcium (source), trace minerals
 - Be able to recommend specific combinations / sources
- * Know what conditions / drugs / foods / drinks deplete which vitamins & minerals



Practical Application

Nutritional - Supplements

- ★ Have a source(s) for determining quality of product, recommended uses, interactions
- ★ Don't recommend against unless you have done the research
- ★ Don't say "It probably won't hurt you, so I guess it is OK"
 - Know the therapeutic indication – if you don't, research!
 - Recommend for or against based on your *evidence-based* research



Practical Application

Naturopathy

- * First, do no harm!!!
- * Identify and treat the cause: Treat the cause of disease, not merely the symptoms
- * Prevention is the best cure
- * The physician is a teacher: A physician's major role is to educate, empower and motivate patients to take responsibility for their own health



Practical Application

Manual therapies

- * Osteopathic / Chiropractic
 - Well documented to be efficacious for treating a wide range of musculoskeletal dysfunctions including: HA, cervical, thoracic, lumbar, pelvic, myofascial pain – acute or chronic
 - **Consider EARLY in dysfunction**
 - *Osteopathic* - more likely to use range of manual therapies other than high velocity (HVLA)
 - *Chiropractic* - more likely to use HVLA, more frequently, over a longer period of time
- * Deep tissue massage – great for myofascial



Practical Application

Acupuncture

- ★ Great for most acute or chronic pain of musculoskeletal origin – traumatic or non-traumatic (non-surgical)
 - Consider first-line or after manual therapies
 - Don't wait until condition is chronic, much more efficacious to treat acute problem
 - Not likely to be as (immediately) effective for dense, chronic problems – but always worth an evaluation
- ★ Consider for complicated patients with multiple somatic complaints (FMS, CFS,...)



Practical Application

Botanicals - Homeopathy

- ★ Know indications – if you don't, find out!
 - Be able to recommend for or against use
 - Stick with evidence-based indications
 - If you don't know indication / interactions – don't prescribe
 - Know drug – herb interactions or where to find
 - Know how standardized and how to determine
- ★ Use in *complementary* fashion



Practical Application

General

- * Ask about the use of CAM at each visit
- * If you prescribe a CAM therapy, document!
 - Diets, nutritional supplements, botanicals are all DRUGS – document prescription as such
- * Know indications for use of CAM therapies and when to recommend for or against use
 - If you are unsure of a therapy and are concerned for harm, ask your patient to withhold further treatment until you can research
- * Have reliable, current, evidence-based resources and refer to them often



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- * Steyer, Terrence E. MD *Complementary and Alternative Medicine: A Primer*. Family Practice Management Volume 8 • Number 3 • March 2001 (<http://www.aafp.org/fpm/20010300/37comp.html>)
- * 2003 Symposium – The American Academy of Medical Acupuncture
- * The Art, Science and Practice of Holistic Medicine – ABHM Board Review, Oct 11-14 2003



Web sources

- ★ **The Natural Pharmacist** (Recently purchased by Healthgate - routed through TriCare Online)
 - **Conditions**
 - **Herbs** and Supplements
 - **Drug** Interactions
- ★ www.herbalgram.org/
- ★ www.consumerlab.com/
- ★ www.supplementwatch.com/
- ★ www.nutrition.org/nutinfo



Web sources

- * www.nccam.nih.gov/
- * www.nlm.nih.gov/medlineplus/alternativemedicine.htm
- * ods.od.nih.gov/health.aspx
- * www.medicalacupuncture.org
- * www.acupuncture.com
- * www.wholehealthmd.com/
- * www.holisticonline.com/herb_home.htm
- * www.naturalhealers.com/index.php
- * www.holisticmedicine.org
- * www.amerboardholisticmed.org
- * www.homeopathic.org

